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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant: Reinhold BURR et al.

Title: AIR INLET, IN PARTICULAR FOR A MOTOR VEHICLE

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BRIEF ON APPEAL

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Sir:

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REAL PARTY IN INTEREST

The real party in interest is Behr GmbH & CO. KG of Germany, which is the assignee of record of the present application.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

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STATUS OF CLAIMS

Claims 15-37 were subject to the Final Rejection, and all claims are the subject of this appeal. Claims 1-14 are cancelled. Claims 15, 28, and 33 are the independent claims.

STATUS OF AMENDMENTS

A Final Rejection issued on June 6, 2007. No amendments to the claims have been submitted in response to the Final Rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention of claim 15 relates to an air inlet for a motor vehicle (page 1, lines 4-5 of the original specification), comprising:

an air duct for supplying air (page 4, line 26-27 of the original specification);

a metering device (page 4, line 27 of the original specification); and

an air-guiding device (page 4, lines 28-29 of the original specification) comprising a plurality of subducts for dividing air in the air-guiding device (page 5, lines 4-7 of the original specification), and an outflow region with an outer circumferential region and a middle region (page 5, lines 17-31; page 6, lines 10-20; and reference numerals 11 and 12 in Figs. 3-4 of the original specification) and,

wherein one subduct leads to the middle region and another subduct leads to the outer circumferential region (page 5, lines 17-31 and reference numerals 11 and 12 in Figs. 3-4 of the original specification).

The present invention of claim 28 relates to an air inlet for a motor vehicle (page 1, lines 4-5 of the original specification), comprising:

an air duct for supplying air (page 4, line 26-27 of the original specification);

a metering device (page 4, line 27 of the original specification); and

an air-guiding device (page 4, lines 28-29 of the original specification),

wherein the air-guiding device comprises a plurality of subducts for dividing air in the air-guiding device (page 5, lines 4-7 of the original specification), and

wherein one subduct has a coiled or elongated, helical region (page 3, lines 17-19; page 5, lines 21-31; claim 10 of the original specification).

The present invention of claim 33 relates to an air inlet for a motor vehicle (page 1, lines 4-6 of the original specification), comprising:

an air duct for supplying air (page 4, line 26-27 of the original specification);
a metering device (page 4, line 27 of the original specification); and
an air-guiding device (page 4, lines 28-29 of the original specification),
wherein the air-guiding device comprises a plurality of subducts for dividing air in the air-guiding device (page 5, lines 4-7 of the original specification), and
wherein one of the subducts is configured to impart a spot action to the air at an exit of the air duct (page 3, lines 10-15 and page 6, lines 22-27 of the original specification) and another of the subducts is configured to impart a swirl to the air at the exit of the air duct (page 3, lines 15-19 and page 6, lines 29-36 of the original specification).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection that are set forth in the Office Action are to be reviewed on appeal:

- (1) the rejection of pending claims 15-27 under 35 U.S.C. § 102(b) over U.S. Patent 5,101,883 (“Kinmartin”); and
- (2) the rejection of pending claims 28-37 under 35 U.S.C. § 103(a) over Kinmartin in view of U.S. Patent 6,575,701 (“Kamiya”).

ARGUMENT

I. The rejection of claims 15-27 based on Kinmartin is improper because Kinmartin does not teach or suggest all the features of claim 15.

Kinmartin does not teach or suggest “an air-guiding device comprising a plurality of subducts for dividing air in the air-guiding device, and **an outflow region with an outer circumferential region and a middle region** and, wherein one subduct leads to the middle region and another subduct leads to the outer circumferential region.” Kinmartin does not teach or suggest these features because Kinmartin does not teach or suggest **any single outflow region with an outer circumferential region and a middle region**, nor does Kinmartin

disclose one subduct going to one of these regions and a second subduct going to the other region.

The PTO asserts that the defroster discharge vents 46a and 46b are considered to be the “outer circumferential region” while the vertical passage 58 is considered to be the “middle region.” However, the vents 46a, 46b and the vertical passage 58 are two completely different vents. The vents 46a, 46b and passage 58 are not in the same outflow region, *as called for by claim 27*. The “outflow regions” 46a, 46b identified in the Office Action are at a level far above vertical passage 58, as clearly seen in Fig. 3 of Kinmartin. Further the vents 46a, 46b do not at least partially surround the passage 58, which is connoted by the term “circumferential” which describes the outer region. Indeed, the vents 46a, 46b are not said to partially surround any region in an outflow region. Because the vents 46a, 46b are not a circumferential region of an outflow region partially surrounding the passage 58, Kinmartin does not teach or suggest “an outflow region with an outer circumferential region and a middle region and, wherein one subduct leads to the middle region and another subduct leads to the outer circumferential region.” Accordingly, Kinmartin does not teach or suggest all the features of claim 15 and its dependent claims.

In addition, both subducts 36a and 36b lead both to one of respective outlet vents 46a, 46b as well as to passage 58, as discussed beginning at col. 1, line 19 of Kinmartin. In this respect, as well, Kinmartin does not literally satisfy the language of claim 27, as is required for a proper anticipation rejection.

For at least this reasons, reversal of the rejection is respectfully requested.

II. The rejection of claims 28-37 based on Kinmartin and Kamiya is improper because there is no reason to combine the teachings of Kinmartin and Kamiya.

No combination of Kinmartin and Kamiya teaches or suggests a **subduct that has a coiled or elongated, helical region** as required in claim 28, or one of the subducts configured to impart a spot action to the air at an exit of the air duct and another of the subducts configured to impart a swirl to the air **at the exit of the air duct**, as required by claim 33. The PTO contends that Kamiya teaches these features and “it would have been obvious...to have modified the air inlet of Kinmartin in view of the teaching of Kamiya in order to blow air within a vehicle passenger compartment in particular for an air heater arrangement faster and more efficient airflow.” (Pages 5-6 of the Office Action.) This rejection is improper, as a

threshold matter, because there is no rational reason, other than improper hindsight, to combine the teachings of Kinmartin and Kamiya.

The Supreme Court in the *KSR Int'l Co. v. Teleflex, Inc.*,¹ 127 S.Ct. 1727 (U.S. 2007), recently clarified the standards for obviousness. For example, the Court has stated that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the art...it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR* at 1741. In addition, the Court in *KSR* stated that a reason to combine elements should be made explicit. *Id.* at 1740-41.¹ Indeed, the Court approvingly cited *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006), for requiring an articulated reason. *Id.* at 1741.²

In this present case, Kinmartin relates to a distribution duct separated into channels while the passages of Kamiya referenced by the PTO relate to blowers, and not distribution ducts. Blowers in “motor vehicle” HVAC systems are not part of the air distribution system, i.e., the ducting system that is *downstream* of the heat exchanger components. Instead, the blower is located *upstream* of the heat exchanger components. The distribution duct of Kinmartin and the blower casing of Kamiya have totally different functions and design considerations, and as a result, one with ordinary skill in the art would not have a reason for making the proposed combination.

Furthermore, because the distribution duct of Kinmartin and the blower casing of Kamiya have different functions, each of the elements of Kinmartin and Kamiya when combined as proposed by the PTO would not perform the same function as it does in the prior art, a situation quite different from *Ex parte Smith*, Board of Patent Appeals and Interferences (decided June 25, 2007) (precedential decision). In *Smith*, a rejection based on obviousness was upheld because the elements that were combined from various references did not change

¹ “Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.” *Id.* at 1740-41.

² “Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” *Id.* at 1741.

in their respective functions,³ which is not the case here. In particular, the spiral side of Kamiya is not acting as an aid to channel air out of the blower (as in Kamiya) but is functioning as an air distributor into the vehicle compartment.

Furthermore, the PTO's own guidelines regarding KSR⁴ ("PTO guidelines") suggests the combination is not obvious because of the change in function of the spiral configuration of Kamiya. In particular, the PTO guidelines provide that a finding of obviousness based on combining prior art elements according to known methods to yield predictable results is not established if there is no finding that each element merely would have performed the same function as it did separately. (Page 57529, vol. 72, No. 195 of the Federal Register.)

Because the PTO's proposed combination would change the function of the spiral blower casing of Kamiya, there is no reason to combine the spiral blower casing of Kamiya with the teachings of Kinmartin. Accordingly, any rejection based on Kinmartin and Kamiya is improper, and claims 28 and 33 and their respective dependent claims are not rendered unpatentable over the prior art.

III. The rejection of claims 28-37 based on Kinmartin and Kamiya is improper because no combination of Kinmartin and Kamiya teaches or suggests all the features of claim 28 or claim 33.

No combination of Kinmartin and Kamiya teaches or suggests all the features of claim 28, particularly the feature "wherein **one subduct** has a coiled or elongated, helical region." There are no "subducts" in the claimed sense in Kamiya's blower, and there is consequently absolutely no teaching or suggestion stemming from Kamiya that would lead the skilled artisan to provide an individual subduct in Kinmartin with a helical region. Further, there would be no reason to do so in Kinmartin, for at least the reason that the region in which the subducts are located is nowhere near the air outlet into the vehicle passenger compartment, but rather the subducts terminate at two different sides of the vents, i.e., vents 46a and 46b,

³ "[E]ach of the elements of Wyant, Dick, and Ruebens combined by the Examiner performs the same function when combined as it does in the prior art. Thus, such a combination would have yielded predictable results." *Ex Parte Smith* at 22.

⁴ PTO's Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex, Inc.*

respectively. **Thus, what would motivate the artisan to form one of these two subducts (or for that matter, both of them) in a spiral configuration?**

The PTO states the motivation as being “in order to blow air within a vehicle passenger compartment in particular for an air heater arrangement faster and more efficient airflow,” citing Kamiya, col. 1, ll. 14-17. However, there are at least two problems with this alleged motivation. First, the cited portion of Kamiya says nothing about “faster and more efficient” airflow. Moreover, the person skilled in the art knows that extending the length of an airflow passage and twisting it in a helical shape does not provide for more efficient airflow, but rather produces a less efficient airflow. Consequently, the motivation alleged by the PTO for combining the references instead betrays the improper hindsight nature of basis for making the stated combination of references with respect to claim 28. The PTO has failed to provide a rational basis for combining the references, and the rejection should be reversed for this reason.

Likewise, no combination of Kinmartin and Kamiya teaches or suggests all the features of claim 33, particularly the features of “wherein one of the subducts is configured to impart a spot action to the air at an exit of the air duct and another of the subducts is configured to impart a swirl to the air at the exit of the air duct.” The passage of Kamiya relied upon by the PTO merely teaches the use of “the side....opposite to a suction portion is enlarged in a spiral fashion.” (Column 1, lines 29-35 of Kamiya.) There is nothing to suggest in Kinmartin, Kamiya, or any combination thereof of an exit of an air duct with a subduct that imparts spot action and a subduct that imparts a swirl. Even if it were accepted, *arguendo*, that Kamiya teaches replacement of ducts that impart spot action with ducts that impart a swirl (which Kamiya does not teach), Kamiya still does not teach or suggest a single exit of an air duct with a subduct that imparts spot action and a subduct that imparts a swirl, as claimed.

Further, the language of claim 33 requires the “spot” and “swirl” actions to be at “an exit of the air duct.” In applying Kinmartin to claims 15-27, the PTO has identified as the “outflow region” the area of mouth 38, where subducts 36a, 36b intersect with vertical passage 58. See Fig. 2 of Kinmartin and page 2 of the Final Rejection. There is absolutely no reason or benefit that would suggest providing a “spot” and a “swirl” airflow action at this point in Kinmartin’s system, nor has any been alleged by the PTO. Again, Appellants

respectfully request the PTO to explain how and where the blower of Kamiya would motivate a person skilled in the art to modify Kinmartin to provide spot action and swirl action airflow at mouth 38 of Kinmartin. Absent such an explanation, the rejection should be reversed.

Thus, no combination of Kinmartin and Kamiya teaches or suggests all the features of claim 28 and/or claim 33 and their respective dependent claims. Accordingly, claims 28 and 33, as well as their dependent claims are not rendered unpatentable over the prior art for these additional reasons. Reversal of the rejections is respectfully requested.

IV. Conclusion.

The PTO has not established that the claims 15-27 are anticipated by Kinmartin because Kinmartin does not teach or suggest any single outflow region with an outer circumferential region and a middle region.

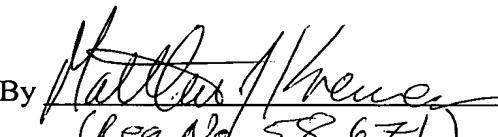
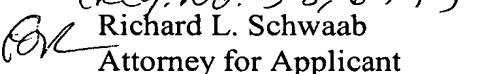
Claims 28-37 are not rendered obvious by Kinmartin and Kamiya because, (1) as a threshold matter, the combination of these two references is improper for the reasons explained above, and (2) no combination of Kinmartin and Kamiya teaches or suggests all of the subject matter defined in either claim 28 or claim 33.

Accordingly, all of the claims in this application are believed to be allowable, and Appellants respectfully request reversal of the rejections on appeal.

Respectfully submitted,

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CLAIMS APPENDIX

15. An air inlet for a motor vehicle, comprising:
an air duct for supplying air;
a metering device; and
an air-guiding device comprising a plurality of subducts for dividing air in the air-guiding device, and an outflow region with an outer circumferential region and a middle region and,
wherein one subduct leads to the middle region and another subduct leads to the outer circumferential region.

16. The air inlet as claimed in claim 15, wherein the air-guiding device comprises a divided entry region configured such that the air in the air-guiding device is divided into the plurality of subducts without any significant change in direction of the subducts in the divided entry region.

17. The air inlet as claimed in claim 16, wherein the division in the entry region is axially symmetrical.

18. The air inlet as claimed in claim 15, wherein the air-guiding device further comprises a partition which, at least in regions, runs along a longitudinal direction of the air duct.

19. The air inlet as claimed in claim 15, wherein the division of the air duct into a plurality of subducts is provided for at a distance of 1 to 10 times a mean diameter of the air duct in a corresponding region upstream of an exit of the air from the air-guiding device.

20. The air inlet as claimed in claim 15, wherein the air-guiding device further comprises an elbow, wherein the air is divided into a plurality of subducts in the region of the elbow.

21. The air inlet as claimed in claim 20, wherein the elbow has an angle from 80° to 100°.

22. The air inlet as claimed in claim 21, wherein the angle of the elbow is 90°.
23. The air inlet as claimed in claim 15, wherein the metering device is arranged upstream of the air-guiding device.
24. The air inlet as claimed in claim 15, wherein the metering device is configured to control air which can be fed to individual subducts of the plurality of subducts.
25. The air inlet as claimed in claim 15, wherein the metering device controls distribution of incoming air between individual subducts and controls metering of the incoming air.
26. The air inlet as claimed in claim 15, wherein the metering device comprises an actuating device with a double flap controlled by a cam disc or a kinematic mechanism.
27. The air inlet as claimed in claim 26, wherein the actuating device is connected to an actuating member via a shaft.
28. An air inlet for a motor vehicle, comprising:
 - an air duct for supplying air;
 - a metering device; and
 - an air-guiding device,
wherein the air-guiding device comprises a plurality of subducts for dividing air in the air-guiding device, and
wherein one subduct has a coiled or elongated, helical region.
29. The air inlet as claimed in claim 28, wherein the air-guiding device comprises a divided entry region configured such that the air in the air-guiding device is divided into the plurality of subducts without any significant change in direction of the subducts in the divided entry region, and wherein the division in the entry region is axially symmetrical.
30. The air inlet as claimed in claim 28, wherein the air-guiding device further comprises an elbow, wherein the air is divided into a plurality of subducts in the region of the elbow.

31. The air inlet as claimed in claim 28, wherein the metering device controls distribution of incoming air between individual subducts and controls metering of the incoming air.

32. The air inlet as claimed in claim 28, wherein the metering device comprises an actuating device with a double flap controlled by a cam disc or a kinematic mechanism.

33. An air inlet for a motor vehicle, comprising:

an air duct for supplying air;
a metering device; and
an air-guiding device,

wherein the air-guiding device comprises a plurality of subducts for dividing air in the air-guiding device, and

wherein one of the subducts is configured to impart a spot action to the air at an exit of the air duct and another of the subducts is configured to impart a swirl to the air at the exit of the air duct.

34. The air inlet as claimed in claim 33, wherein the air-guiding device comprises a divided entry region configured such that the air in the air-guiding device is divided into the plurality of subducts without any significant change in direction of the subducts in the divided entry region, and wherein the division in the entry region is axially symmetrical.

35. The air inlet as claimed in claim 33, wherein the air-guiding device further comprises an elbow, wherein the air is divided into a plurality of subducts in the region of the elbow.

36. The air inlet as claimed in claim 33, wherein the metering device controls distribution of incoming air between individual subducts and controls metering of the incoming air.

37. The air inlet as claimed in claim 33, wherein the metering device comprises an actuating device with a double flap controlled by a cam disc or a kinematic mechanism.

EVIDENCE APPENDIX

-NONE-

RELATED PROCEEDINGS APPENDIX

-NONE-